

REMARKS

Applicant would like to thank Examiner Stevens for the telephone call on August 3, 2005 during which priority of the present application was discussed. In general, the Office Action mailed April 5, 2005 stated the Applicant had not complied with 37 C.F.R. § 1.63(c) because the oath, declaration, or application data sheet does not acknowledge the filing of any foreign application. During this call, Applicant's representative pointed out that the application data sheet submitted at the time of filing the present application includes the foreign priority information. More specifically, the application data sheet claims priority to German Patent Application Number 100 62 571.1 filed on December 15, 2000. Examiner Stevens agreed that the application data sheet was submitted and that it properly claims priority to the foreign application.

Objection to the Specification

The Patent Office objected to the specification for not complying with 37 C.F.R. § 1.77(b). In response, Applicant has amended the specification to insert headers for each section of the application. As such, the objection to the specification should be withdrawn.

Improper Multiple Dependent Claims

The Patent Office objected to claims 5-7 under 37 C.F.R. § 1.75(c) as being improper multiple dependent claims. More specifically, the Patent Office objected to claims 5-7 because multiple dependent claims cannot depend from any other multiple dependent claim. Applicant has amended claims 5-7 such that these claims no longer depend from another multiple dependent claim.

Claim Rejections - § 102

The Patent Office rejected claims 1-5, 8, and 9 under 35 U.S.C. § 102(b) as being anticipated by Wilkinson ("Assessment of UHF Power Amplifier Linearization by Measurement and Simulation" (IEEE 1989)). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).

Applicant has amended claim 1 to correct a typographical error. Namely, the term "suppression" should have been "subtraction." In order to place claim 1 in proper method claim form, Applicant has amended claim 1 to replace "suppression of" with "subtracting." Support for this amendment can be found on page 3 of the specification.

Before discussing the rejection of claim 1, it may be beneficial to provide a brief discussion of the claimed invention. The purpose of the method according to pending claim 1 is to determine a non-linear signal distortion of an analog circuit using a digital filter modeling the analog circuit. In order to configure the digital filter as a digital model of the analog circuit, a first discrete multitone signal, which has a large number of uniformly spaced carrier frequencies within a predetermined frequency range, is applied to the analog circuit. The same first multitone signal is applied to a digital filter. The output signal of the analog circuit is then subtracted from the output signal of the digital filter resulting in a difference signal. Then, the digital filter is adjusted in such a way that the difference signal becomes minimal. The adjusted digital filter represents the digital model of the analog circuit.

Next, a second discrete multitone signal is applied to the adjusted digital filter, which is the model of the analog circuit. The second discrete multitone signal corresponds to the first discrete multitone signal; however, at least one carrier frequency of the first multitone signal is suppressed in the second multitone signal. Finally, the intermodulation product of the output signal of the adjusted digital filter is measured.

Wilkinson fails to expressly or inherently disclose how to obtain a digital model of an analog circuit. More specifically, Wilkinson fails to disclose generating a difference signal by subtracting the output signal of an analog circuit from the output signal of a digital filter and using the difference signal to adjust the digital filter in such a way that it represents a model of the analog circuit. In addition, Wilkinson fails to disclose applying a multitone signal having a large number of uniformly spaced carrier frequencies to the analog circuit in order to obtain the digital model of the analog circuit. Finally, Wilkinson fails to disclose applying a second discrete multitone signal to the adjusted digital filter, wherein the second discrete multitone signal corresponds to the first discrete multitone signal with at least one carrier frequency being suppressed. Therefore, since Wilkinson fails to expressly or inherently disclose each of the elements of claim 1, claim 1 is allowable.

For at least the same reasons claim 1 is allowable, claims 2-7 are also allowable. However, Applicant reserves the right to further address the rejections of claims 2-7 in the future if necessary.

Regarding claim 8, Wilkinson fails to disclose a test arrangement for determining nonlinear signal distortion of analog circuit elements. Note that a number of analog circuit elements are needed. More specifically, claim 8 claims a test arrangement for determining nonlinear signal distortions including a signal generator, adjustable modeling filters, subtraction circuits, an adjustment circuit, and a measurement circuit. The adjustable modeling filters are each connected in parallel to one of the analog circuit elements. Each of the subtraction circuits subtracts the output of one of the analog circuit elements from the output of the corresponding adjustable modeling filter. The adjustment circuit then adjusts modeling filters based on a comparison of the difference signals from the subtraction circuits and a nominal value. However, Wilkinson fails to disclose a number of analog circuits, let alone a test arrangement including the claimed signal generator, adjustable modeling filters, subtraction circuits, adjustment circuit, and measurement circuit. As such, claim 8 is allowable.

For at least the same reasons claim 8 is allowable, claim 9 is also allowable. However, Applicant reserves the right to further address the rejection of claim 9 in the future if necessary.

Claim Rejections - § 103

The Patent Office rejected claims 6 and 7 under 35 U.S.C. § 103(a) as being obvious in view of Wilkinson and Hjartarson (U.S. Patent No. 6,295,343). However, for at least the same reasons claim 1 is allowable, claims 6 and 7 are also allowable. Applicant reserves the right to further address the rejections of claims 6 and 7 in the future if necessary.

Respectfully submitted,

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